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## ECA Update February 23, 2016

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### **Upcoming Events**

## February 2016

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Senate Armed Services
Subcommittee on
Strategic Forces Hearing
"Department of Energy
Atomic Energy
Defense Activities and
Program"
(2:30 PM)
Visit website.

## February 2016

24

House Energy and Commerce Hearing "DOE for the 21st Century: Science, Environment, and National Security Missions" (11:30 AM) Visit website.

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DOE - EM

**LANL Budget Request Holds A Few Surprises** 

LA Daily Post

#### \$107.7 billion needed to finish Hanford cleanup

Tri-City Herald February 23, 2016 LINK

The latest price tag for the remaining environmental cleanup of the Hanford nuclear reservation comes to an estimated \$107.7 billion.

The estimate — released Monday by the Department of Energy with its regulators, the Environmental Protection Agency and the state of Washington — includes cleanup work planned to be largely completed by 2060, plus some post-cleanup oversight.

#### **March 2016**

01

House Subcommittee
on Energy and Water
Development
Appropriations Hearing
"Budget Hearing Department of
Energy"
(9:30 AM)
Visit website.

#### **March 2016**

01

House Subcommittee on Energy and Water Development
Appropriations Hearing "Budget Hearing - Department of Energy, National Nuclear Security Administration, Weapons and Activities and Nuclear Nonproliferation and Naval Reactors" (1:30 PM)
Visit website.

**March 2016** 

This is the sixth annual lifecycle report prepared by DOE since an annual requirement for the report was added to the legally binding Tri-Party Agreement in 2010.

The 2016 Hanford Lifecycle Scope, Schedule and Cost Report estimate is consistent with the 2015 report's estimated cost, according to the Tri-Party agencies. The 2015 estimate was \$110.2 billion.

In recent years DOE has had a little over \$2 billion to spend on cleanup.

\$52.7 billion remaining cost of Richland Operations Office cleanup Costs for specific projects in the report also are adjusted up or down, based on latest estimates. This year's report is complicated by a change to how infrastructure and sitewide services charges are reported, making comparisons of estimated changes to project costs in the last year difficult.

The report is required to be based on completing cleanup work to meet all regulatory cleanup obligations and deadlines, which can result in some unrealistic annual budget projections.

The 2016 lifecycle report has five years in which cleanup is estimated to require budgets of at least \$3 billion. But it has less dramatic spending peaks and valleys than the 2015 report, which showed one year with a budget of more than \$4 billion.

In the 2016 estimates, cleanup costs would remain above \$2 billion through 2047 and then drop to \$1 billion or less starting two years later.

However, the Hanford Advisory Board has noted that if budget figures remain at their current annual spending levels, cleanup could take 20 to 30 years longer than projected.

The report does not reflect changing plans for the Hanford vitrification plant, being built to treat up to 56 million gallons of radioactive waste for disposal.

02

House Subcommittee on Energy and Water Development
Appropriations Hearing
"Budget Hearing Department of Energy,
Applied Energy"
(10:30 AM)
Visit website.

**March 2016** 

03

Senate Energy and
Natural Resources
Hearing
"Hearing to examine
the Department of
Energy's budget
request for Fiscal
Year 2017"
(10:00 AM)
Visit website.

August 2016

9-10

Third Annual Intermountain Energy Summit Idaho Falls, ID <u>Visit website</u>. Until a new cost and schedule for the plant is developed, the report is based on plans to start treating waste in 2019 and have the plant fully operating in 2022.

\$55 billion remaining cost of Office of River Protection cleanup DOE now is proposing that court-enforced deadlines be extended because of technical issues at the vitrification plant. It is proposing that some waste treatment begin as early as 2022 but that that plant not reach full operation until 2039.

Most of the \$107.7 billion estimate in the lifecycle report is for cleanup work, with costs of oversight of the site through 2090 estimated at \$4.8 billion.

The report breaks down cost estimates separately for the Hanford Richland Operations Office and the Hanford Office of River Protection. The Office of River Protection is responsible for the 56 million gallons of waste stored in underground tanks and the vitrification plant, and the Richland Operations Office is responsible for all other cleanup and sitewide services, such as utilities and security.

The estimate for remaining costs for Richland Operations Office work is \$52.7 billion in the 2016 lifecycle report, down from \$53.6 billion in the 2015 report. The Office of River Protection estimate is \$55 billion in the 2016 report, down from \$56.6 billion in last year's report.

#### Winds blow small amount of radiation onto highway

AP: Statesman Journal February 22, 2016 LINK

RICHLAND, Wash. (AP) — The uncontrolled spread of small amounts of radioactive waste at Hanford after a Nov. 17 windstorm is alarming, the U.S.

## September 2016

**14-15** 

DOE National Cleanup Workshop Hilton Alexandria Mark Center Alexandria, VA <u>Visit website.</u>

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Environmental Protection Agency said in a letter to the Department of Energy.

The high winds pushed specks of contamination beyond Route 4, a public highway in Richland to the Wye Barricade entrance to Hanford.

The Tri-City Herald reported Monday that tests found no contamination remained near the highway. The Department of Energy concluded that workers and the public are not at risk of exposure.

But the EPA said such a spread of contamination "is a matter that is alarming to EPA and requires further investigation and discussion."

It has given the Energy Department until the third week of April to prepare a report on its loss of control of radioactive material, and say what actions it plans to prevent a recurrence.

Hanford is located north of Richland, Washington, and for decades made plutonium for nuclear weapons. The site is now engaged in a massive cleanup of the radioactive waste left over from plutonium production.

The Energy Department and its contractor, Washington Closure Hanford, have had problems with previous contamination spread from the 618-10 Burial Ground as early as summer 2014, according to the weekly staff reports of the Defense Nuclear Facilities Safety Board.

In one of the previous incidents, a windstorm spread small pieces of plastic outside the burial ground's boundary fence. The plastic, used to wrap contaminated equipment, can become brittle and break.

Workers at the burial ground near Route 4 have been digging up contaminated debris and drums of waste from trenches to be treated and taken to a lined landfill in central Hanford for disposal. The waste came from research and uranium fuel fabrication work at Hanford before 1964.

On Nov. 17, winds that hit 70 to 75 mph pushed sandy grains of contamination that had spread toward the road and two grains on the east side of the road. Contamination was cleaned up as it was discovered.

Washington Closure Hanford told the EPA on Nov. 24 that all radiological material had been collected.

But on Dec. 11, the state Department of Health conducted a follow-up survey on behalf of EPA and found four specks of contamination that had spread outside of areas of radiological control. Three were on the west side of the highway and one was on the east side.

#### Nuclear fuel arrives in Tennessee

Post-Register February 22, 2016 LINK

Spent nuclear fuel originally intended for Idaho National Laboratory has instead arrived at Tennessee's Oak Ridge National Laboratory, and research on the highly radioactive material is underway.

The 100 pounds of "high burnup" nuclear material — one of two proposed shipments that sparked major controversy in Idaho — did not appear to gather much attention in Tennessee. The Knoxville News Sentinel first reported on the material's arrival from the North Anna Power Station in Virginia last week.

Meanwhile, communication is improving to possibly bring the second proposed shipment of fuel to Idaho National Laboratory for research, Idaho Attorney General Lawrence Wasden said in a recent interview. That shipment would come from Byron Nuclear Generating Station in Illinois.

Negotations broke down between the U.S. Department of Energy and Wasden over the shipments in October. The DOE continues to be out of compliance with the 1995 Settlement Agreement, which regulates nuclear waste cleanup in the state.

For most of last year Wasden said DOE needed to get the problem-prone Integrated Waste Treatment Unit up and running before he'd sign off on the shipments, as outlined in the Settlement Agreement. If the radioactive waste treatment facility wasn't going to work, he said DOE needed to outline a different plan and timeline for how to treat some 900,000 gallons of liquid radioactive waste.

But DOE did not agree to the terms Wasden laid out, and the North Anna shipment was instead sent by the agency to Oak Ridge, a significant loss in research work and federal dollars for INL.

Wasden said communication between his office and DOE is starting to improve regarding the second shipment coming to INL. He has had multiple direct talks in recent months with Monica Regalbuto, DOE's assistant secretary for its Office of Environmental Management, discussions he said weren't happening before.

"There are a couple things that are really good signs (for coming to an agreement)," Wasden said. "One of them is, I have had that direct conversation with Dr. Regalbuto. I also have had direct conversations with folks here at INL ... I think those are very positive signs."

Wasden added: "The fact that (DOE has) made those (communication) changes, and allowed this conversation to take place, I view as very, very healthy. Now, does that mean we'll ultimately get a resolution? I don't know. I certainly hope we can. That's been my goal from day one."

Issues at IWTU

Wasden also discussed the continued challenges at DOE's Integrated Waste Treatment Unit. Last week, scientists from around the country met in Idaho Falls to try and solve several issues with the plant, which for years has been unable to safely get past the testing phase. DOE officials said they remain committed to the current treatment technology, despite another series of recently discovered problems.

Wasden said he could only "react" to what the DOE told him about the plant. "I don't have the technical expertise here," he said.

"I'm relying on them," he said of DOE. "If they think this machine is going to work, I'm willing to take them at their word. And if they think this machine isn't going to work, I'm going to take them at their word. I don't have any way to measure or second guess what they're telling me."

#### Reactors summit at ORNL charts course for clean energy

ORNL News February 19, 2016 LINK

Moving advanced nuclear reactors from the drawing board to the field was the focus of the Advanced Reactors Technical Summit III, hosted by the Department of Energy's Oak Ridge National Laboratory and attended by 180 experts from industry, government and academia.

The conference, sponsored by the U.S. Nuclear Infrastructure Council (<a href="http://www.usnic.org">http://www.usnic.org</a>) in conjunction with ORNL and the Summit III Organizing Committee, featured remarks by John Kotek, acting assistant secretary of DOE's Office of Nuclear Energy; Jeffery Merrifield, former commissioner of the Nuclear Regulatory Commission and chairman of the Nuclear Infrastructure Council's Advanced Reactors Task Force; and current NRC Commissioner William Ostendorff.

Alan Icenhour, ORNL associate laboratory director for Nuclear Science and Engineering, noted that enthusiasm among advanced reactors designers continues to grow as evident by this year's attendance, which more than tripled last year's participation.

"Attendance was strong as we're seeing a growing interest in advanced reactors," Icenhour said. "Some 40 companies are developing new reactors worldwide and we've seen investments of an estimated \$1.3 billion."

The conference comes on the heels of DOE's Jan. 15 announcement that will initially fund two projects, awarded to X-energy and Southern Company Services at \$6 million. The projects allow industry-led teams to work with national laboratories and universities to advance nuclear energy technology.

ORNL is among the partners that will support both projects, which have a possible multi-year value of \$80 million including cost-share from the industry teams. With the DOE investment, X-energy and Southern Company Services will be able to further develop their advanced reactor designs with potential for demonstration in the mid-2030s.

Other notable summit participants included David Blee, executive director of the Nuclear Infrastructure Council; Christofer Mowry, director of ARC Nuclear; Cindy Pezze, vice president and chief technology officer of Westinghouse Electric Co.; Robert Hill, technical director, nuclear engineering, Argonne National Laboratory; Tom O'Connor, director, Office of Advanced Reactor Technologies, DOE; and Kamal Pasamehmetoglu, associate lab director, Idaho National Laboratory. Other participants from ORNL were Gary Mays, a group leader in the Reactor and Nuclear Systems Division; Jeremy Busby, director of the Materials Science and Technology Division; and John Hunn, program manager in the Fusion and Materials for Nuclear Systems Division.

Panel discussions focused on fuels, materials, accident tolerance, passive cooling, proliferation resistance, test reactor concepts, prototype and demo

concepts, costs, and funding avenues and licensing considerations. Kotek and others also stressed the important role of the Office of Nuclear Energy's Gateway for Accelerated Innovation in Nuclear, or GAIN. Through GAIN, DOE's state-of-the-art and continuously improving R&D infrastructure at its national labs will be made available to stakeholders to achieve faster and cost-effective development of innovative nuclear energy technologies.

The Nuclear Infrastructure Council is the leading U.S. business consortium advocate for new nuclear and engagement of the American supply chain globally. The council, composed of nearly 70 companies, represents the "Who's Who" of the nuclear supply chain community.

UT-Battelle manages ORNL for the DOE's Office of Science. The Office of Science is the single largest supporter of basic research in the physical sciences in the United States, and is working to address some of the most pressing challenges of our time. For more information, please visit <a href="http://science.energy.gov/">http://science.energy.gov/</a>.

#### Board: Hanford deadline extensions too extreme

Tri-City Herald February 17, 2016 LINK

The Hanford Advisory Board is leery of extending legal deadlines for much of the environmental cleanup work in central Hanford and along the Columbia River.

The Department of Energy has proposed changing 64 milestones, or deadlines, in the Tri-Party Agreement.

The board complained that none of the changes would speed up work, and some projects would be delayed almost a decade.

The new deadlines would provide "only losses in the form of delays and no benefits in the form of accelerated cleanup projects," the board said in a letter to DOE and its regulators.

Central Hanford has about 400 buildings and about 1,500 waste sites where contaminated material was dumped, spilled or leaked into the soil.

DOE, the Environmental Protection Agency and the state Department of Ecology have long known that focusing on cleanup at Hanford along the Columbia River in recent years would mean delays in cleanup work in central Hanford.

The three agencies negotiated an agreement with deadlines for the next phase of cleanup — excluding work to empty Hanford's storage tanks and treat the waste for disposal — that they believed was realistic based on slightly higher Hanford budgets.

They propose extending by almost a decade — to 2024 — the current 2016 deadline for completing investigations and screening possible cleanup methods for many of the central Hanford buildings and waste sites.

The date by which cleanup would be required to be completed is listed as "to be determined."

The deadline for DOE to say when three large processing plants — PUREX, REDOX and B Plant — would be required to be cleaned up would be extended from 2022 to mid-2026.

The board is not having it.

"There is nothing impossible, nor impractical, about accomplishing remediation under the original TPA (Tri-Party Agreement) milestones, utilizing technology that is currently available," the advisory board said in the letter.

Delays negotiated in the proposed new milestones "were too easily pushed out using insufficient funding as an excuse, rather than proposing more stringent cleanup deadlines to make the case for more funding," the board said.

The proposed new deadlines also do not reflect the urgency of cleanup, the board said. They seem to assume that contaminants in the ground and in groundwater will stay put during the proposed delays, rather than migrating and posing more risk.

It called for more stringent deadlines to demonstrate the priority of cleanup work to Congress and make Congress more likely to provide adequate funding to Hanford.

It objected to the "to be determined" dates, as did many people who attended public hearings on the proposed changes earlier this winter in Washington and Oregon.

"The goal should be to establish specific, achievable milestones within a process that allows for changing milestones, when necessary," the board said.

It also objected to delaying the cleanup deadline for the 324 Building near Richland and the highly radioactive spill beneath it by three years.

"Extremely high radiation levels and proximity to the Columbia River and to the people living within the boundary of the city of Richland morally obligates near-term action," the letter from the board said.

The state of Oregon also has sent a letter to DOE, saying that the proposed delays have been anticipated, but the length of delays caught it by surprise.

Those deadlines listed as "to be determined" would likely slip by an additional two or three decades, the state of Oregon said.

The Tri-Party agencies should take their best shot at developing realistic deadlines, even if they will cause major concern, the state said. The public needs to understand the expected length of delays.

It also questioned whether DOE's plans to complete three major projects at the same time in 2021 are realistic. Plans call for demolishing U Plant, cleaning up the high-hazard 618-11 Burial Ground, and digging up the spill beneath the 324 Building and demolishing the building.

The public comment period on the proposed changes recently ended.

#### Advisory board seeks volunteers

Chillcothe Gazette February 18, 2016 LINK

The Department of Energy's Portsmouth/Paducah Office is seeking volunteers to fill future vacancies on the Portsmouth Site Specific Advisory Board (PORTS SSAB).

PORTS SSAB is a federally chartered citizens' panel that provides recommendations to the DOE's Portsmouth/Paducah Environmental Management Program, which is responsible for cleanup of the DOE site in Piketon. Chartered in 2009 under the Federal Advisory Committee Act, the board is composed of up to 20 members, chosen to reflect diversity of gender, race, occupation, and interests of persons living near the Portsmouth Reservation. PORTS SSAB meets monthly to discuss and develop recommendations on cleanup decisions and on EM-related policy issues, the board's primary mission.

All PORTS SSAB meetings and its committees are open to the public.

Technical expertise is not required for board membership, and a broad

spectrum of backgrounds and viewpoints is sought. Terms are for two years, and members may serve up to three terms.

PORTS SSAB members serve on committees that study specific issues in depth, such as cleanup strategies, hazardous waste management, and long-term stewardship. The board also reviews DOE EM planning decisions and cleanup-related documents.

Membership applications are available on the board's website at <a href="www.ports-ssab.energy.gov">www.ports-ssab.energy.gov</a> or by calling 740-289-5249. The deadline for submitting applications is Feb. 26.

# Idaho National Laboratory site permit issued for SMR project World Nuclear News February 19, 2016 LINK

The US Department of Energy has agreed to grant a permit to support a small modular reactor project within the boundary of its Idaho National Laboratory (INL) site. In a statement yesterday, the DOE said its newly signed agreement with Utah Associated Municipal Power Systems (UAMPS) builds on President Barack Obama's plan "to advance America's leadership in clean energy innovation".

The site use permit allows UAMPS to access the INL site to analyse environmental, safety, and siting conditions. UAMPS is working to identify potential locations that may be suitable for building the UAMPS Carbon Free Power Project (CFPP) "for further characterization and analysis", the DOE said.

"If UAMPS identifies a suitable area within the INL site boundary for development of the CFPP, and if the Energy Department determines that the use of such site would not conflict with INL mission work, the design, construction, operation, and eventual decommissioning of an SMR at the

selected site would be licensed and inspected by the US Nuclear Regulatory Commission, following extensive safety and environmental reviews," the DOE said.

The CFPP is "a commercial venture on a federal compound", the DOE said, and the successful deployment of a SMR design "would provide US utilities with a greater range of nuclear energy options" to reduce air pollution and greenhouse gases.

It added that SMRs "feature compact, scalable designs that are expected to offer a host of safety, construction and economic benefits, and could potentially supply low-carbon baseload energy to small electric grids and locations that cannot support larger reactors."

The SMR design for the CFPP is being provided by NuScale Power of Portland, Oregon. Engineered with passive safety features, the 50 MWe NuScale Power Module provides power in increments that can be scaled to 600 MWe (gross) in a single facility, the company says on its website.

UAMPS describes itself as "a political subdivision of the State of Utah that provides comprehensive wholesale electricity on a not-for-profit basis, to community-owned power systems throughout the Intermountain West." Its membership represents 45 members from Arizona, California, Idaho, Nevada, New Mexico, Oregon, Utah and Wyoming.

In his final State of the Union address last month, Obama said that tackling climate change is an "urgent challenge", adding, "We've got to accelerate the transition away from dirty energy."

DOE travelers & the city: Do they stay here?

The Oak Ridger February 19, 2016

LINK

Tennessee Sens. Randy McNally and Ken Yager and state Reps. John Ragan and Kent Calfee penned a letter to the U.S. Department of Energy on Oct. 7, 2015, inquiring about the travel practices of Department of Energy workers coming to Oak Ridge.

The DOE responded on Nov. 18, 2015.

Until this month, the Oak Ridge City Council had reportedly not seen DOE's response, although it was sent to Roane County Executive Ron Woody.

On Thursday, The Oak Ridger received copies of both letters.

The "McNally Letter," as it has been called at city governmental meetings, asked the following three questions of DOE leadership in Oak Ridge:

- The number of DOE and DOE contractor and subcontractor travelers who stay in hotels outside of Oak Ridge are their total travel costs capped at Oak Ridge reimbursement levels?
- Referring to how DOE applies the per diem rate requirement in a footnote of an attached General Services Administration table, are DOE contractors and subcontractors who use per diem required to follow this cost-saving rule? That footnote states: "Traveler reimbursement is based on the location or the work activities and not the accommodation unless lodging is not available at the work activity then the agency may authorize the rate where lodging is obtained."

If this rule is not followed, are they achieving the lowest lodging and meal costs considering the large number of available low-per-diem Oak Ridge hotel rooms?

 In regards to the number and size of DOE and DOE contractor and subcontractor conferences and meetings that were held outside of Oak Ridge last year, how many will be held outside Oak Ridge this year and next? The response from DOE said the large majority of DOE visitors stay in Oak Ridge. It also said DOE and its contract employees follow the federal travel regulations issued by GSA.

The DOE letter goes on to say that "travelers visiting our Federal field offices and sites are authorized and approved by their assigned supervisors at their home office. Further, while we are all governed by the same federal regulations, their specific travel information is not readily available to the DOE/NNSA (National Nuclear Security Administration) offices and sites."

Regarding the first question posed in the McNally letter, the DOE letter said UT-Battelle/Oak Ridge National Laboratory (ORNL) had 178 visitors stay outside Oak Ridge in Fiscal Year 2015. The letter said that is 20 percent of the 910 non-employee trips processed by ORNL in FY 2015. The NNSA production office, including the Uranium Processing Facility (UPF) had 139 primarily long-term visitors in Knoxville. It also said that UPF provides only Oak Ridge hotel information to its travelers and "temporary assignees."

Oak Ridge Environmental Management (OREM) does not track that information, but does maintain a list of Oak Ridge hotels and restaurants. The letter said about 1,650 DOE employees, contractor employees and visitors stayed in Oak Ridge in FY 2015.

For the second question, the DOE response said, "If a traveler chooses to stay outside of Oak Ridge, while visiting our offices and sites, the traveler would only be reimbursed at the Oak Ridge per diem rates, unless otherwise authorized, as the electronic government travel system automatically lists per diem rates for the location where the duty will be performed."

Regarding Question Three, for ORNL's 239 FY 2015 events, 144 were held in Oak Ridge and 95 in "locations other than Oak Ridge."

The reasons given for events not held in Oak Ridge for all DOE activities were "Oak Ridge venues are not large enough to accommodate some events, venues are not available on the dates needed, the meeting location is not at the host agency's discretion, or the meeting place is unable to meet the needs of the meeting and/or attendees."

ORNL has 63 conferences and meetings occurring in FY 2016 and 35 of those are planned for Oak Ridge. The reason given for the different location for the remaining 28 events were the same as cited above. NNSA has one meeting for about 30 attendees and 39 specialized training classes, which will be held in Oak Ridge. OREM doesn't have any events or meetings scheduled outside Oak Ridge in FY 2016.

In an open letter to DOE, sent to The Oak Ridger Thursday by Oak Ridge resident Martin McBride, he claims Oak Ridge hotels were only 48 percent full last year. He also said DOE could have saved 11 percent in travel costs by housing travelers in Oak Ridge, but instead paid "the higher Knoxville rates, encouraging them to stay over there — and costing federal taxpayers and the Oak Ridge economy millions of dollars."

In his letter, McBride states that in October 2015, the Oak Ridge City Council invited DOE officials to appear before the City Council and discuss DOE travel and residency policies. McBride said the lack of response by DOE officials some four months later sends the message that Oak Ridge is unimportant to DOE.

McBride's letter and DOE's response to the McNally letter can be read at www.oakridger.com.

The Oak Ridger on Thursday emailed David Keim and Ellen Boatner of ORNL and Consolidated Nuclear Security (CNS), respectively, for information on their travel policies.

Keim sent this link to The Oak Ridger:

https://www.ornl.gov/content/oak-ridge-hotels. The link leads to a page that contained only hotels in Oak Ridge and the ORNL on-site guest house.

Boatner sent this link: <a href="http://www.y12.doe.gov/about/visiting-us/area-information">http://www.y12.doe.gov/about/visiting-us/area-information</a>. It contains various links to area attractions, restaurants and other items of interest in Oak Ridge and Knoxville. It also has links to Knoxville hotels and Oak Ridge hotels.

#### Council eyes landfill impact on city

The Oak Ridger
February 18, 2016
LINK

During a Tuesday night Oak Ridge City Council work session, Council member Charlie Hensley opened a discussion about a recently released economic impact analysis on the clean up of the Oak Ridge Reservation and the proposed construction of a second hazardous waste disposal facility.

Hensley was upset that the report failed to mention Oak Ridge in a substantial manner concerning the landfill's economic impact to the city.

"They mention Roane County, Anderson County and Knox County," Hensley said. "They don't mention Oak Ridge once. Not once."

Hensley also pointed out that the proposed hazardous waste disposal facility to be built in Oak Ridge will save the U.S.

Department of Energy about \$1 billion based on DOE estimates. "We should be arguing with them (DOE) for \$300 (million) to \$400 million," he said. "If it will save \$1 billion, they should split that with us."

Hensley mentioned suing the federal agency and several of his Council member counterparts seemed hesitant. Council member Trina Baughn told Hensley to put a resolution on the agenda for the March City Council meeting and he said he would.

"We are suffering from the Stockholm Syndrome around here," Hensley said referring to a psychological syndrome whereby hostages empathize or sympathize with their captors.

On Wednesday, The Oak Ridger obtained a copy of the economic impact analysis summary that was given to City Council members at a meeting last week. The newspaper was also able to obtain a complete copy of the 30-page report prepared by the University of Tennessee Howard Baker Center for Public Policy.

After reading the summary and the full report and conducting electronic searches of the documents, Hensley appears to be correct in that Oak Ridge is only mentioned in a historical context and there is no mention about the impact the Oak Ridge Office of Environmental Management (OREM) activities have on the city specifically. The report and the summary spell out the impacts on Anderson, Roane and Knox counties. However, the stated impacts, from the context of the full report, which Hensley said he didn't have access to, do seem to include Oak Ridge.

The Oak Ridger called Baker Center Director Michael Murray to clarify this point. Murray, who authored the report, said the presumption is that Oak Ridge is included in the Anderson and Roane County estimates.

"We didn't intend to slight anyone," he said. "We were trying to focus on the broad, three-county area of Anderson, Roane and Knox. That is where the DOE-OREM has the highest impact in the state."

According to the report, the largest DOE-OREM expenditure in Tennessee in 2014 was payroll. The \$145.5 million spent on payroll accounted for 47.6

percent of total Tennessee expenditures. The total non-payroll expenditures were just over \$127 million. Those expenditures included manufacturing, transportation and other logistical costs.

The report also discussed the number of jobs created by DOE-OREM activities. Total jobs created in 2014 were 1,926. Those were direct hires. The report also spoke of 2,830 jobs created "indirectly through the multiplier effect." This effect was a result of DOE-OREM related purchases "along with multiplier effects associated with payroll spending and pensions."

The report also indicated state and local sales tax revenues collected through OREM activities totaled \$14.9 million in Fiscal Year 2014.

The total local sales tax revenue was listed at \$3.7 million.

The Oak Ridger sent an email to Oak Ridge Finance Director Janice McGinnis for the total sales tax revenue received by the city. That email was not returned by deadline.

The second part of the Baker Center report examined the expected economic impact of constructing and operating a new onsite disposal facility in Oak Ridge. This would be a second facility in the Secret City. The current facility, used primarily to cleanup the former K-25 site, is expected to be full by the first part of the next decade.

The estimated increase in output expenditures for Anderson, Roane and Knox counties is \$1 billion over the life of the project. Personal income expenditures are expected to grow to \$608.7 million from \$381 million.

Overall employment related to the project is expected to grow to 5,712 full-time jobs from the present 2,682 direct hire jobs.

In its conclusion, the report said, "Continued on-site waste disposal supporting cleanup of the Oak Ridge Reservation will require the construction and operation of a new facility in Oak Ridge, Tennessee.

The construction and operation of this facility would have a significant economic impact on the Anderson, Roane, and Knox counties region as measured by personal income, sales and use tax revenue, and employment."

Follow Russel Langley on Twitter @newsrusslangley.

Department of Energy Cites Nuclear Waste Partnership, LLC and Los Alamos National Security, LLC for Violations Related to Worker Safety and Health and Nuclear Safety

DOE - EM February 19, 2016 LINK

WASHINGTON, D.C. – The U.S. Department of Energy (DOE) today issued a Preliminary Notice of Violation (PNOV) to Nuclear Waste Partnership, LLC (NWP) for violations of DOE worker safety and health and nuclear safety requirements. Concurrently, DOE's National Nuclear Security Administration (NNSA) issued a PNOV to Los Alamos National Security, LLC (LANS) for violations of DOE's nuclear safety requirements. Issuance of these PNOVs marks the completion of DOE's investigations and enforcement process regarding two events in 2014 at DOE's Waste Isolation Pilot Plant (WIPP).

NWP is the management and operating contractor for WIPP, located in Carlsbad, New Mexico. LANS is the management and operating contractor for NNSA's Los Alamos National Laboratory (LANL), located in Los Alamos, New Mexico. Worker safety and health and nuclear safety are priorities for the Department, and DOE's enforcement program, implemented by the Office of Enterprise Assessments' Office of Enforcement on behalf of the Secretary of Energy, supports these priorities by holding contractors accountable for

meeting regulatory requirements and maintaining a safe and healthy workplace.

The violations by NWP at WIPP are associated with two events that occurred in February 2014. The first event involved a fire in a salt haul truck in the WIPP underground, and the second event involved a radiological release. The violations by LANS at LANL are associated with processes used by LANS to package and remediate transuranic waste drums, one of which has been linked to the WIPP radiological release.

The NWP PNOV cites four Severity Level I violations and seven Severity Level II violations related to worker safety and health and nuclear safety requirements enforceable under Title 10 C.F.R. § 851, Worker Safety and Health Program; 10 C.F.R. § 820.11, Information requirements; 10 C.F.R. § 830, Nuclear Safety Management, and 10 C.F.R. § 835, Occupational Radiation Protection. The LANS PNOV cites two Severity Level I violations and two Severity Level II violations related to nuclear safety requirements enforceable under 10 C.F.R. § 830.

In FY 2014, actions taken by DOE and NWP's inability to earn fee resulted in NWP failing to receive 93 percent of the available fee, or approximately \$7.6 million. NNSA reduced the total contract fee that was awarded to LANS by more than 90 percent, or approximately \$57 million, with most of this reduction due to deficiencies in the processing and handling of transuranic waste and the resultant impact on operations at WIPP. NNSA also reduced the potential length of the LANS contract by a total of 2 years. Due to these significant adverse contract and fee actions taken against NWP and LANS, DOE is proposing no civil penalties for the violations cited in the two PNOVs.

DOE's Office of Enforcement promotes overall improvement in the Department's safety and security programs through management and implementation of the DOE enforcement programs for safety and classified information security, authorized by the Atomic Energy Act. The office is independent of the DOE offices that develop and implement policy and

programs. The office conducts enforcement investigations and thoroughly evaluates operational events and conditions that represent potentially serious violations of the Department's nuclear safety, worker safety and health, and classified information security regulations.

DOE's enforcement program encourages contractors to identify and correct deficiencies in their worker safety and health and nuclear safety programs at an early stage, before they contribute to, or result in, more serious safety and health events.

Additional details on these PNOVs and other enforcement actions are available on the DOE website at:

http://energy.gov/ea/services/enforcement.

#### LANL Budget Request Holds A Few Surprises

LA Daily Post February 19, 2016 LINK

The Obama administration's fiscal 2017 budget for Los Alamos National Laboratory proposes a steady course, with a slight dip in funding and a few adjustments.

Out of a total Department of Energy Budget proposal of \$32.5 billion, a 9.8 percent increase over this year, the National Nuclear Security

Administration's request is for \$12.9 billion, an increase of 2.9 percent over the same period. If enacted by Congress, the Obama administration's \$2.1 billion request for Los Alamos represents a decline of a little more than 4 percent from the current appropriation.

Weapons activities, despite the comparable reduction requested, remain the largest item in the budget. The nuclear deterrent, Energy Secretary Moniz said, continues to be an important story.

During a press conference immediately after the budget request was released Feb. 9, Moniz said "The life extension programs of a shrinking number of models has been going on well."

In other remarks he touted science and a variety of energy research and development programs, including a call for a 21 percent increase in Mission Innovation, a climate-related international effort to double clean energy investment over the next five years.

He called for "upping the ante" on addressing aging infrastructure problem at NNSA and all the laboratories. "We will not allow deferred maintenance to keep growing," he said. "That's not a way to keep the ship going."

One notification, identified as a significant change in the budget justification, was the formal cancellation of the Chemistry and Metallurgy Research Replacement Nuclear Facility. The former flagship of the plutonium manufacturing project, CMRR-NF has been carried on the budget but deferred since 2012.

Instead, the plutonium pit-making capacity promised by CMRR has been broken into four subprojects that would restructure and equip available space in the Plutonium Facility and the Radiological Laboratory Utility Office Building (RLUOB) that was built as part of the CMRR project, but will now take on a much more significant role.

Already upgraded in the amount of plutonium-239 equivalent nuclear material it can hold, RLUOB is undergoing analysis to re-categorized it again to a Hazard Category 3 Nuclear Facility, qualified to house up to 400 grams of plutonium 239-equivalent material.

Pits are the fissile cores of nuclear weapons. The Plutonium Modular Approach, is a plan under study for building two or three underground modules to enable the pit-making effort to ramp up by 2030 to the 50-80 pits per year stipulated by Congress in the 2015 Defense Authorization Act.

In December, 2015 a Plutonium Modular Approach was given a green light by NNSA for more thorough study and conceptual definition, but it appeared at first to be completely missing in the Fiscal 2017 budget. In fact, as NNSA Administrator Frank Klotz acknowledged during a press conference on Feb.10, there is money for that in the current request.

"We do have money in the FY 17 budget – about 6 million dollars in the plutonium sustainment fund," Klotz said, "which will be used for the development of the conceptual design for an analysis of alternatives for the additional capacity we need at Los Alamos to do pit manufacturing." He said the rest of the request would be back again in another year or two and additional due diligence.

While defense programs related to the nuclear stockpile across the complex would go up by 4.5 percent under the president's budget for next year, defense nuclear nonproliferation, the global threat prevention and nuclear material safeguard programs, would decline by 6.8 percent to \$1.8 billion.

As the budget was unveiled, NNSA officials were asked why the current weapons request had met and exceeded last year's projections, while the nonproliferation budget, on the eve of the President's last security summit, has fallen short.

Anne Harrington, NNSA Deputy Administrator for Defense Nuclear Nonproliferation said there was a fairly straightforward answer.

Defense programs have to do with the national laboratories which operate within certain parameters of expectation; whereas the nonproliferation programs involve foreign countries, like Russia, whose relationship with the United States may fluctuate over time.

"Even though we may project when certain activities are to be executed – because we have international partners that's not always possible," she said.

"We still need money to cash-flow ourselves through, but not right now in 2017. Outward we still have some use for it."

Budget requests are a significant starting point in the process of determining a federal budget appropriation, but Congress will have a say as well.